CSR FRICTION TESTER

SMETS TECHNOLOGY

ICAO CONFIRMED FRICTION TESTING EQUIPMENT

CONTINUOUS SKID RESISTANCE (CSR) DEVICE

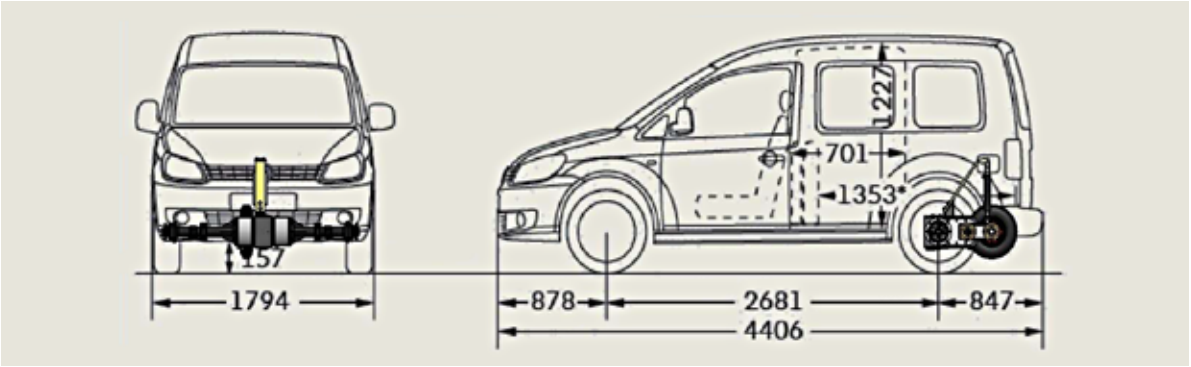
The CSR device has been designed to measure the safety parameters of runway and racetrack surface with utmost precision. The measuring device is equipped with an advanced hydraulic-electronic system. This enables reliable and efficient friction measurements even on bumpy or inclining surfaces under any weather condition without having to make any corrections to its calibration.

THE CSR CAN PERFORM THE FOLLOWING MEASUREMENTS:

- ↗ Wet and dry friction measurements
- ↗ Braking distance
- ↗ Surface temperature and humidity
- ↗ Optional: Crack spotting
- ↗ Optional: Texture depth of the surface

TECHNICAL DATA

- Breaking degree of the measuring wheel 13 %, relative to the wheels on the rear axle of the CSR device
- Hydraulic downforce of the measuring wheel to the surface from 1.3 to 1.4 kN to ensure a reliable measurement on uneven surfaces
- R-square regression coefficient (to ICAO listed devices) from 0,82 to 0,99
- Water tank with a volume of 500 litres (larger tank size can be ordered if technically possible)
- Thickness of the water film is 1mm (in compliance with ICAO directives)
- Speed control and automatic gear to maintain constant speed with minimal effort
- Breaking distance is measured and marked
- Measurements can be followed by the driver live on the on-board computer and the testing results are saved on a memory drive. The results can be extracted in form of a report with exact geographical data (GIS)
- The CSR can be upgraded with a geometry measuring system which shows and analyzes all surface cracks larger than 1 mm



The cabin with the control panel

Water hydraulic system

Program interface

ADVANTAGE OF CSR DEVICE

FRICTION MEASURING FREQUENCY
every 10 cm

POSIBILITY OF FRICTION TEST WITH SPEED RANGE
from 20 to 120 km/h

POSIBILITY OF FULLY CUSTOMIZED SOFTWARE
(individual reports generator)

LASER CONTROL
of pavement surface texture changes

RUBBER THICKNESS CONTROL
automatic

INTERNATIONAL ROUGNESS INDEX (IRI) MEASUREMENT

SKID-RESISTANCE MEASUREMENT MODE
without stopping the device

MEASUREMENT
of surface temperature and humidity

The CSR device has been designed and manufactured to control pavement parameters responsible for traffic safety.

The solution was adapted to perform measurements simulating the braking process of a vehicle equipped with ABS technology on wet and dry surfaces.

The installed measuring wheel is equipped with an advanced hydraulic system, which allows reliable measurements.

The vehicle is equipped with its own water tank, which allows continuous measurements with a 1 mm thick water-film. The test results can be tracked live. The results are also saved and can be presented in the form of a final report in the Geographic Information System (GIS) environment. The user of the device can connect to the CSR on-board computer via the internet and can visualize the test results shortly after making the surface measurements.

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